

## INTERNATIONAL SEARCH REPORT

PCT/IB 03/03712

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 B28D5/02 B28D5/00 H01L21/56

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 B28D H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 400 004 B1 (CHEN DANIEL ET AL) 4 June 2002 (2002-06-04) column 1, line 65 -column 2, line 2 column 2, line 9 - line 21 column 3, line 62 -column 4, line 3 column 4, line 40 - line 60 column 5, line 31 - line 39 figures 5-7	14,16
Y		1,7, 9-11,13, 15,17
A	— —/—	4,5,14, 15,18

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
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- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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Date of the actual completion of the international search  24 November 2003	Date of mailing of the international search report  02/12/2003
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  CHARIOT, D

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 413 150 B1 (BLAIR DAVID B) 2 July 2002 (2002-07-02)  column 1, line 33 - line 42 column 1, line 53 - line 60 column 5, line 24 - line 29 column 5, line 39 - line 45 figures	1,7, 9-11,13, 17
A	---	2,3,8, 12,15
Y	US 2001/005601 A1 (LEE SEONGOO ET AL) 28 June 2001 (2001-06-28) page 6, paragraph 82	15
A	US 5 678 466 A (WAHL WILFRIED) 21 October 1997 (1997-10-21) the whole document	1-3
A	US 6 105 567 A (SUN YONG KYUN ET AL) 22 August 2000 (2000-08-22) column 4, line 6 - line 49 figures	1
P,X	US 2002/109973 A1 (FUNAKOSHI MASASHI ET AL) 15 August 2002 (2002-08-15) page 1, paragraph 6 page 4, paragraph 40 page 4, paragraph 47 - paragraph 48 figures 2,3,11	1,7-10, 13-17
P,A	US 6 467 278 B1 (KO SHARON MEI WAN ET AL) 22 October 2002 (2002-10-22) column 2, line 41 -column 3, line 16 figures 1-4	1,13,17
A	EP 1 110 669 A (DISCO CORP) 27 June 2001 (2001-06-27) column 6, paragraph 36 - paragraph 38 figures 1,2,3A-3B,10	1-3

## INTERNATIONAL SEARCH REPORT

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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 6400004	B1	04-06-2002	NONE		
US 6413150	B1	02-07-2002	JP	2000357672 A	26-12-2000
US 2001005601	A1	28-06-2001	KR	2000074350 A	15-12-2000
			KR	2001026562 A	06-04-2001
			KR	2001026565 A	06-04-2001
			JP	3398721 B2	21-04-2003
			JP	2000340714 A	08-12-2000
			US	6395578 B1	28-05-2002
			JP	3416737 B2	16-06-2003
			JP	2000340713 A	08-12-2000
			JP	3314304 B2	12-08-2002
			JP	2001007253 A	12-01-2001
			JP	2000323616 A	24-11-2000
			US	2003001285 A1	02-01-2003
			US	2003100142 A1	29-05-2003
			US	6515356 B1	04-02-2003
			US	6501184 B1	31-12-2002
			US	6512288 B1	28-01-2003
US 5678466	A	21-10-1997	DE	4309134 A1	29-09-1994
			AT	153582 T	15-06-1997
			AU	684761 B2	08-01-1998
			AU	6425494 A	11-10-1994
			BR	9405951 A	19-12-1995
			CA	2157474 A1	29-09-1994
			CN	1119424 A ,B	27-03-1996
			CZ	9502319 A3	17-07-1996
			DE	59402924 D1	03-07-1997
			DK	690766 T3	22-12-1997
			WO	9421424 A1	29-09-1994
			EP	0690766 A1	10-01-1996
			ES	2105675 T3	16-10-1997
			FI	954439 A	20-09-1995
			GR	3024449 T3	28-11-1997
			JP	3393868 B2	07-04-2003
			JP	8507970 T	27-08-1996
			PL	310445 A1	11-12-1995
			RU	2135343 C1	27-08-1999
			SI	690766 T1	28-02-1998
			SK	117795 A3	06-03-1996
US 6105567	A	22-08-2000	KR	225909 B1	15-10-1999
			CH	689112 A5	15-10-1998
			CN	1201083 A	09-12-1998
			DE	19748055 A1	03-12-1998
			JP	10335272 A	18-12-1998
US 2002109973	A1	15-08-2002	JP	2002246530 A	30-08-2002
			CN	1371127 A	25-09-2002
			EP	1239517 A2	11-09-2002
			US	2003203541 A1	30-10-2003
US 6467278	B1	22-10-2002	NONE		
EP 1110669	A	27-06-2001	JP	11058234 A	02-03-1999
			JP	11254281 A	21-09-1999

## INTERNATIONAL SEARCH REPORT

PCT/IB 03/03712

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1110669 A		EP 1110669 A2 CN 1208682 A ,B EP 0897778 A1 SG 70097 A1 TW 434098 B US 6095899 A	27-06-2001 24-02-1999 24-02-1999 25-01-2000 16-05-2001 01-08-2000